

## **ABSTRACT OF THE DISCLOSURE**

**[0047]** Embodiments of the invention include a method, an apparatus, a computer readable medium and a system for forecasting growth within a wireless telecommunications system. The method includes determining current system traffic for the wireless system, determining current minutes of use (MOU) for the current wireless system, estimating future MOU for the wireless system, and forecasting future system traffic for the wireless system based on the system's current traffic, current MOU, and future estimated MOU. The method also is useful for estimating spectrum requirements and balance between coexisting technologies, determining the impact of relief sectors proposed for the wireless system at future points in time, and determining the consequence of different system growth alternatives. Also, the growth forecasting method allocates the forecasted future system traffic throughout the existing system in a suitable manner, e.g., according to the percentage contribution of each system sector to the existing system traffic. The growth forecasting method incorporates growth factors and buffer amounts as part of the system traffic forecasting. For example, the future MOU estimating step can include MOU and subscriber count buffer amounts. Also, the future MOU estimating step can incorporate growth factors including an MOU growth factor and an individual sector busy hour (ISBH) growth factor to reflect system growth rates during peak usage and non-peak usage. The growth forecasting method is suitable for wireless systems that use one or more different existing technologies, e.g., Global System for Mobile Communications (GSM), Advanced Mobile Phone Service (AMPS), Time Division Multiple Access (TDMA), and Code Division Multiple Access (CDMA). Also, the growth forecasting method is compatible with existing system traffic offload algorithms.